FORM MR-LMO
(Revised 1/92)

FOR DIVISION USE ONLY
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STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING
355 West North Temple
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Salt Lake City, Utah 84180-1203
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NOTICE OF INTENTION TO COMMENCE LARGE MINING OPERATIONS

The informational requirements in this form are based on provisions of the Mined Land Reclamation Act, Title 40-8, Utah Code Annotated 1953, General Rules and Rules of Practice and Procedures.

This form applies only to mining operations which disturb or will disturb greater than five acres at any given time.

"MINING OPERATIONS" means those activities conducted on the surface of the land for the exploration for, development of, or extraction of a mineral deposit, including, but not limited to, surface mining and the surface effects of underground and in situ mining, on-site transportation, concentrating, milling, evaporation, and other primary processing.

"Mining operation" does not include: the extraction of sand, gravel, and rock aggregate; the extraction of oil and gas as defined in Chapter 6, Title 40; the extraction of geothermal steam; smelting or refining operations; off-site operations and transportation; or reconnaissance activities which will not cause significant surface resource disturbance or involve the use of mechanized earth-moving equipment such as bulldozers or backhoes.

PLEASE NOTE: If extra space is required to complete a section, please attach additional sheets and include cross-referenced page numbers as necessary. The operator may submit this information on an alternate form, however the same or similar format must be used.

I. **GENERAL INFORMATION** (Rule R647-4-104)

1. **Mine Name:** Cherry Hill Park

2. **Name of Applicant or Company:** Emery Industrial Resources, Inc.

   Corporation (✓) Partnership ( ) Individual ( )

3. **Permanent Address:** 967 So. 680 W.
   Payson, Utah 84651

4. **Company Representative** (or designated operator):

   Name: Dan L. Powell
   Title: President / Agent
   Address: 967 So. 680W. Payson, Utah 84651
   Phone: (801) 465-2455

5. **Location of Operation:**
   County(ies) Utah
   NW 1/4 of NW 1/4, Section: 36 Township: 11S. Range: 8E.
   _____1/4 of _____ 1/4, Section: _____ Township: _____ Range: _____
   _____1/4 of _____ 1/4, Section: _____ Township: _____ Range: _____

6. **Ownership of the land surface** (circle which applies): (Private (Fee)), Public Domain (BLM), National Forest (USFS), State of Utah or other:

   Name: E.J. Stokes Address: _____
   Name: _____ Address: _____
   Name: _____ Address: _____
   Name: _____ Address: _____

7. **Owner(s) of record of the minerals to be mined:**

   Name: E.J. Stokes Address: _____
   Name: _____ Address: _____
   Name: _____ Address: _____
   Name: _____ Address: _____

8. **Have the above owners been notified in writing?** Yes ✓ No _____
   If no, why not? _____

9. **Does the operator have legal right to enter and conduct mining operations on the land covered by this notice?** Yes ✓ No _____.

II. MAPS, DRAWINGS & PHOTOGRAPHS (Rule R647-4-105)

1. Base Map

A complete and correct topographic base map (or maps) with appropriate contour intervals must be submitted with this notice which show all of the items on the following checklist. The scale should be approximately 1 inch = 2,000 feet (preferably a USGS 7.5 minute series or equivalent topographic map where available) showing the location of lands to be affected in sufficient detail to permit calculation of proposed surface disturbance.

Map Checklist

Please check off each section as it is drawn on the map(s). Does the map show:

(a) Property boundaries of surface ownership of all lands which are to be affected by the mining operations; ✓

(b) Perennial streams, springs and other bodies of water, roads, buildings, landing strips, electrical transmission lines, water wells, oil and gas pipelines, existing wells or boreholes, or other existing surface or subsurface facilities within 500 feet of the proposed mining operations; ✓

(c) Proposed route of access to the mining operations from nearest publicly maintained highway (Map scale appropriate to show access); ✓

(d) Known areas which have been previously impacted by mining or exploration activities within the proposed land affected; ✓

(e) Acreages proposed to be disturbed or reclaimed each year (or other suitable time period. ✓ (4.0 Acres)

2. Surface Facilities Map

A surface facilities map shall be provided at a scale of not less than 1" = 500'.

Map Checklist

Please check off each section as it is drawn on the map. Does the map show:

(a) Proposed surface facilities, including but not limited to buildings, stationary mining/processing equipment, roads, utilities, power lines, proposed drainage control structures, and the location of topsoil storage areas, overburden/waste dumps, tailings or processed waste facilities, disposal areas for overburden, solid and liquid wastes, and wastewater discharge, treatment and containment facilities; ✓

(b) A border clearly outlining the extent of the surface disturbed area proposed to be affected by mining, and the number of acres proposed to be affected; ✓

(c) The location of known test borings, pits, or core holes. ✓

3. **Additional Maps**

Additional maps and drawings may be required as applicable in accordance with Rule R647-4-105.3.

III. **OPERATION PLAN** (Rule R647-4-106)

1. **Mineral(s) to be mined:** Limestone

2. **Acreage to be disturbed:**

Minesite (operating, storage, disposal areas, etc.):	6.5
Access/haul roads/conveyors:	4.5
Associated on-site processing facilities:	2.0
Total:	13.0

3. **Describe methods and procedures to be employed for mining, on-site processing and concurrent reclamation.**

Open pit mining is accomplished by borehole drilling and blasting. Limestone is then crushed to specifications. Any topsoil that may exist is pushed into stockpile(s) before mining starts. This topsoil is spread out over the area after mining activities have ceased, followed by discing and seeding.

4. **Elevation of groundwater** (if known): (Unknown) ft.

5. **Thickness of soil material to be stockpiled:** 1-6 inches
   Area from which soil material can be salvaged: 4.5 acres
   Volume of soil to be stockpiled: 1200 cu. yds.
   (cross reference with item IV-17)
   (2" ave salv. depth)

6. **Thickness of overburden:** Varies between 0 ~~to~~ 5 ft.

7. **Thickness of mineral deposit:** 5 - 12 ft.

8. **Volume of refuse, tailings, and processing waste stockpiles:** 500 cu. yds.

9. **Acreage and capacity of tailings ponds and water storage ponds to be constructed:** None acres

   None Acre-Feet

10. **Describe how topsoil or subsoil material will be removed, stockpiled and protected:** Topsoil will be scraped with dozer and pushed into stockpiles to be used later in reclamation phase.

11. **Describe how overburden material will be removed and stockpiled:**
    None

12. **Describe how tailings, waste rock, rejected materials, etc. will be disposed of:**
    If any, these materials will be used as fill.

13. **Potentially deleterious materials must be analyzed for toxicity. Describe the nature of any deleterious materials which will be used, encountered, or generated onsite** (See Rule R647-1-004):
    None

    Specify analyses to be conducted on these materials. None

    NOTE: The Division may stipulate additional analyses.

14. **For each tailings pond, sediment pond, or other major drainage control structures, attach design drawings and typical cross-sections.**

15. **Describe any proposed effluent discharge points (UPDES) and show their location on the map provided under Rule R647-4-105.2. Give the proposed discharge rate and expected water quality. Attach chemical analyses of such discharge if available.** None

16. **Vegetation** - The operator is required to return the land to a useful condition and reestablish at least 70 percent of the premining vegetation ground cover.

The ground cover percentage figure is determined by sampling and averaging the vegetation type(s) on the areas to be mined (see Attachment I for suggested sampling methods).

(a) Vegetation Survey - The following information needs to be completed based upon the vegetation survey:

Sampling method used Line Intercept
Number of plots or transects 2

Ground Cover	Percent
Vegetation (perennial grass, forb and shrub cover)	12
Litter	3
Rock/rock fragments	47
Bare ground	38
	100%
Revegetation Requirement - 70 percent of above vegetation figure)	8.4 %

List the four (4) predominant perennial species of vegetation growing on the area.

See Revegetation Species List Prepared by DOGM 8-5-94.

(b) Photographs - The operator may submit photographs (prints) of the site sufficient to show existing vegetation conditions. These photographs should show the general appearance and condition of the area to be affected and may be utilized for comparison upon reclamation of the site. Photographs should be clearly marked as to the location, orientation and the date that the pictures were taken.

17. **Soils** - The plan shall include an order 3 Soil Survey (or similar) and map. This information is needed to determine which soils are suitable for stockpiling for revegetation. This soil data may be available from the local Soil Conservation Service office, or if on public lands, from the land management agency. The map needs to be of such scale that soil types can be accurately determined on the ground (see Attachment I).

(a) Each soil type to be disturbed needs to be field analyzed for the following:

Depth of soil material	3 inches
Volume (for stockpiling)	1200 cu. yds.
Texture (field determination)	Clay Loam
pH (field determination) (cross reference with item IV - 5)	7.6

(b) Where there are problem soil areas (as determined from the field examination) laboratory analysis may be necessary. Soil samples to be sent to the laboratory for analysis need to be about one pint in size, properly labeled, and in plastic bags. Each of the soil horizons on some sites may need to be sampled.

18. **Provide a narrative description of the geology of the area and/or a geologic cross section:** Flagstaff Limestone being gray and blue-gray fresh water limestone.

IV. IMPACT ASSESSMENT (Rule R647-4-109)

Please provide a general narrative description identifying potential surface and/or subsurface impacts. Where applicable, this description should include surface and groundwater systems, threatened or endangered species or their critical habitats, existing soil resources for reclamation, slope stability, erosion control, air quality, and public health and safety.

The Cherry Hill Park Quarry will affect the surface and subsurface to depths of 5 to 12 feet depending on the thickness of the high grade limestone. This is not deep enough to encounter any groundwater systems. There is no known threatened or endangered species to our knowledge in this area. There is also no known threat to public health and safety as a result of this limestone operation.

V. RECLAMATION PLAN (Rule R647-4-110)

1. **List current land use(s) other than mining:** None

2. **List future post-reclamation land-use(s) proposed:** Unknown

3. **Describe each phase of reclamation of the minesite in detail under the following categories:**

(a) Disposal of Trash

Describe how buildings, foundations, trash and other waste materials will be disposed of. All trash and other waste will be hauled away to landfill by contractor. All buildings etc; of a permanent nature will be left in place all of which are pre-existing.

(b) Backfilling and Grading

Describe equipment and methods to be employed, amount of materials to be moved and final disposition of any stockpiled materials. Any depressions or low areas will be filled with waste rock and fines material and then covered with topsoil.

(c) Soil Material Replacement

In order to reestablish the required ground cover, one to two feet (depending on underlying material) of suitable soil material usually has to be redistributed on the areas to be reseeded. If the stockpiled soil isn't sufficient for this, soil borrow areas will need to be located.

How much soil material is planned to be put on the area to be reseeded? 1 to 2 inches

Where will this material come from? Stockpiles

How will it be transported and spread? Front end loader and tractors.

(d) Seed Bed Preparation

Describe how the seedbed will be prepared and equipment to be used. Topsoil will be spread then disced then seeded, then raked.

(The Division recommends ripping or discing six inches deep)

(e) Seed Mixture - List the species to be seeded:

Species Name	Seeding Rate (lbs Pure Live Seed/Acre)
See Recommended Revegetation Species List	
Prepared by DOGM	8-5-94

(The Division recommends seeding 20 lbs./acre of native and introduced adaptable species of grass, forb, and browse seed and will provide a specific species list if requested)

(f) Seeding Method

Describe method of planting the seed. Mechanical Seeder

(The Division recommends planting the seed with a rangeland or farm drill, or if broadcast seeded, harrow or rake the seed 1/4 to 1/2 inch into the soil. Fall is the preferred time to seed)

(g) Fertilization

Describe fertilization method and rate. None

(h) Other Revegetation Procedures

If other reclamation procedures, such as mulching, irrigation, etc., are planned, describe them. None

VI. **VARIANCE** (Rule R647-4-112)

Any planned deviations from Rule R647-4-007 (Operating Practices), R647-4-108 (Hole

Plugging Requirements), or Rule R647-4-111 (Reclamation Practices) must be identified below.

Rule Number	Title/Category

For each variance requested, attach a narrative statement describing and delineating the area proposed to be affected by the variance, justifying the need for the variance, and discussing alternate methods or measures to be utilized.

VII. **SURETY** (Rule R647-4-113)

A Reclamation surety must be provided to the Division prior to final approval of this application. In calculating this amount, the Division will consider the following major steps:

1) Clean-up and removal of structures.
2) Backfilling, grading and contouring.
3) Soil material redistribution and stabilization.
4) Revegetation (preparation, seeding, mulching)

To assist the Division in determining a reasonable surety amount, please attach a reclamation cost estimate which addresses each of the above steps.

VIII. **SIGNATURE REQUIREMENT**

I hereby certify that the foregoing is true and correct.

Signature of Operator/Applicant: Dan L Powell

Name (typed or print): Dan L. Powell

Title/Position (if applicable): Agent - Emery Industrial Resources, Inc.

Date: 11-14-94

PLEASE NOTE:

Section 40-8-13(2) of the Mined Land Reclamation Act provides for maintenance of confidentiality concerning certain portions of this report. Please check to see that any information desired to be held confidential is so labeled and included on separate sheets or maps.

Only information relating to the location, size or nature of the deposit may be protected as confidential.

Confidential Information Enclosed: ( ) Yes ( ) No

Attachment I

Vegetation Cover Sampling

Vegetation cover sampling determines the amount of ground that is covered by live vegetation. It is divided into four categories which equal 100 percent. They are:

Vegetation - This is the live perennial vegetation. Care should be taken to avoid sampling in disturbed areas that have a large percentage of annual or weedy vegetation, such as cheatgrass and russian thistle.

Litter - This is the dead vegetation on the ground, such as leaf and stem litter.

Rock/rock fragments - This is the rock and rock fragments on the soil surface.

Bare ground - This is the bare soil which is exposed to wind and water erosion.

Cover Sampling - The following methods are acceptable:

Ocular Estimation

This method visually estimates the percentage of ground covered in a plot by the four components. Plot size is usually a meter or yard square or a circular plot 36 inches in diameter. Ten to 20 plots should be randomly sampled in each major vegetation type.

Line Intercept

Percent ground cover is obtained by stretching a tape measure (usually 100') over the ground and then recording which of the four components is under each foot mark. At least two of these transects should be randomly laid out and measured in each major vegetation type.

Soil Survey and Sampling Methods

If a SCS or land management agency soil survey is not available, the operator shall delineate all soil types that will be disturbed by mining on a map. Each soil type shall be sampled for its characteristics and inherent properties. Representative sampling locations should have similar geologic parent material, slopes, vegetative communities and aspects. The sampling locations should be representative of the soil type and be identified on the map. Sampling shall be at a minimum of one (1) for each soil type disturbed.

The soil map needs to be of sufficient scale so that each soil type can be accurately located on the ground.

Recommended Revegetation Species List
for

Emery Industrial Resources
Cherry Hill Park Mine
M/049/021

Prepared by DOGM August 5, 1994

Common Name	Species Name	*Rate lbs/ac (PLS)
Slender Wheatgrass	*Agropyron trachycaulum*	1.5
Mountain Brome	*Bromus marginatus*	1.5
Piute Orchard Grass	*Dactylis glomerata*	1.0
Great Basin Wildrye	*Elymus cinereus*	1.5
Indian Ricegrass	*Oryzopsis hymenoides*	1.5
Ladak Alfalfa	*Medicago sativa*	1.5
Yellow Sweetclover	*Melilotus officinalis*	0.5
Small Burnet	*Sanguisorba minor*	1.5
Mountain Penstemon	*Penstemon strictus*	0.5
Mountain Big Sagebrush	*Artemisia tridentata vaseyana*	0.1
Rubber Rabbitbrush	*Chrysothamnus nauseosus*	0.25
Serviceberry	*Amelanchier alnifolia*	1.0
Blue Elderberry	*Sambucus caerulea*	1.0
Bitterbrush	*Purshia tridentata*	1.0
	Total	14.35 lbs/ac

***This the recommended broadcast ratio. If the species are to be drill seeded, reduce the broadcast rate by 1/3.**